Testimony of Shari T. Wilson
Secretary of the Maryland Department of the Environment
Committee on Transportation and Infrastructure
Subcommittee on Water Resources and Environment
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"Coal Combustion Waste Storage and Water Quality"

Chairman Johnson, and honorable members of the Committee, thank you for the opportunity to share Maryland's experience with coal combustion waste (CCW) with you and, more importantly, for your interest in this very important issue. Maryland's regulatory program for CCWs includes coal ash, slag scrubber sludge and other byproducts from coal combustion.

In 2007, the most recent year for which complete information is available from Maryland's Public Service Commission, coal generated 59.4% of the electricity generated in the State. In Maryland, most coal waste is generated by five companies at nine facilities. Approximately 2 million tons of coal ash (fly and bottom ash) is generated annually from these Maryland plants. Of that 2 million tons, approximately 1.6 million tons of coal ash is from the plants owned and operated by two companies, Constellation and Mirant.

In Maryland, the Maryland Healthy Air Act requires flue gas desulphurization equipment (known as "scrubbers") to be put in place by 2010 to reduce sulphur dioxide (SO2) emissions by 80%. A second phase of requirements in 2013 will reduce emissions by 85%. That equipment, while reducing SO2 emissions by over 200,000 tons, will also increase the volume of scrubber sludge produced by an estimated 2.5 million tons. By 2013, therefore, facilities in Maryland will generate 4.5 million tons of CCWs.

As you are aware, coal combustion waste is frequently reused. Currently, approximately 1 million tons, or one half of the CCWs produced annually, is beneficially used. For example, fly ash can be reused for concrete manufacturing and in building material. It has also been used as structural fill in roadway embankments and development projects. There are, however, many outstanding questions about ways it can be safely reused. For example, when used for structural fill, should liners be used; should there be defined distances between use of CCWs and potable water sources; should it be prohibited in shoreline areas such as the Chesapeake Bay Critical Area, source water protection areas, wetlands, or other areas of special concern. These are issues being examined as the State begins to develop a second phase of regulations to address the beneficial use of CCWs.

Historically, Maryland regulated CCW disposal through two means, mining and/or water discharge permitting authority (NPDES), but the State did not have regulations that were specific to the management and control of CCWs.

Over the last year few years Maryland discovered significant contamination issues at two sites. As a result, the Department of Environment took legal action to require cleanup of groundwater or surface water contamination. This contamination resulted from the placement of 4 million tons at one site and 5.5 million cu/yrds at a second site. The groundwater contamination at one

site located in Anne Arundel County in Central Maryland affected residential drinking water wells. As a result, the Department required groundwater remediation, provision of a temporary water supply and eventually a connection for residences to a public water supply. The severity of the situation resulted in the third largest civil environmental penalty in state history, a fine of $1 million. At the second site in Southern Maryland, contaminants from one coal ash disposal facility impacted surrounding surface waters. The site is the focus of an enforcement action to ensure corrective measures are taken by the responsible party.

Prior to that action, the Department began to assess how it regulated the disposal of this material. The Department was concerned that the regulatory controls Maryland was using needed to be improved given the range of disposal sites and the varying geology and subsurface conditions in Maryland.

In 2007, the Department was aware that the Environmental Protection Agency (EPA) had been working on regulations since 2000 to institute additional controls on the management of CCWs but had not finalized a proposal. The lack of any federal standard combined with the immediate need to better control disposal prompted Maryland to develop new regulations to strengthen controls on the disposal of coal waste and their use in mine reclamation. In a very short timeframe, within eight months, Maryland proposed regulations for public review and comment at the end of 2007 and announced our intent to develop a second set of regulations dealing with the beneficial reuse of CCWs. On December 1, 2008, regulations on the disposal of coal waste and their use in mine reclamation took effect. The Department is working on a set of regulations to be proposed by the end of 2009 to define the safe beneficial use of CCWs. At least two local governments in Maryland have also begun considering the extent to which they should institute, through their land use planning and zoning authority, additional controls.

Developing and implementing regulations such as these also presents a new expense for the State. To address that issue, the Department proposed and the Maryland General Assembly passed legislation to establish a fee to be paid by a generator of CCWs based on a per ton rate of coal waste generated annually excluding coal waste that is beneficially reused. The bill will be signed into law next month and will take effect July 1, 2009. Regulations to implement the fee will be proposed in 2009. The revenues generated from the fee will be used solely for the implementation of our CCW regulatory program.

In February 2009, EPA requested that States express their preference concerning three possible options that the Administration was considering with respect to the development of coal waste regulations. The three options discussed may be summarized as:

1) Regulation under Resource Conservation and Recovery Act (RCRA) Subtitle D, as a non-hazardous industrial waste, with enforcement largely by the States and through citizen lawsuits, as EPA had originally decided to do in 2000;

2) Regulation under RCRA Subtitle C as hazardous waste, with flexible management requirements afforded under the authority of RCRA Section 3004(x); or

3) Regulation under an approach that establishes basic management standards and criteria under RCRA C, but "delists" those waste which are being handled in accordance with those criteria, but treating as hazardous waste those materials that are not handled appropriately. This has been described in discussions with other States as the "kiln dust" approach, due to its similarity to the manner in which EPA has proposed to address cement kiln dust in a proposal from 1999.

If Federal regulations are enacted, regulation of the material through industrial waste regulations promulgated under RCRA Subtitle D is Maryland's current preferred option. Maryland recognizes that CCWs have the potential to cause pollution of surface and groundwater and recently adopted protective regulations requiring liners, leachate collection, groundwater monitoring, capping, and closure caps. We believe that USEPA could implement similar rules under Subtitle D and afford States the opportunity to demonstrate that they can implement those standards much more quickly than regulation under Subtitle C. Protective mechanisms such as liners, leachate collection systems, caps, and monitoring already required under the existing Subtitle D regulations are sufficient to address the risks posed by CCWs to the environment. This approach also affords citizens the ability to participate through citizen suits authorized under RCRA Subtitle D.

It is also important to note that Maryland has an active coal mining regulatory program that allows for the utilization of alkaline ash, only, in the reclamation process. Approximately half of the coal combustion by-products generated in Maryland are disposed of or used in mine reclamation. There are 15 locations where these materials are disposed of or used in mine reclamation. Ash used in the reclamation of non-coal mine sites follows requirements similar to those found in RCRA Subtitle D standards for CCWs. Maryland's recently enacted regulations will require an applicant to develop and implement a sampling plan for the initial characterization of the coal waste. The plan is required to include a comprehensive list of parameters to be analyzed and the methods used in the analytical characterization. On-going ash characterization will be required as will site monitoring through post closure until MDE is satisfied that the site is stable and not contributing to adverse surface or groundwater impacts. The Department also plans to amend the existing regulations to clarify those deep mining operations will be subject to the same requirements as surface mines.

The Department also supports closer regulation of liquid slurry storage lagoons. Although Maryland does not have any liquid storage lagoons, there are storage lagoons directly across the Maryland line from two facilities that are linked to the lagoons by pipelines. One of these pipelines recently was found to be leaking, which caused a discharge of several thousand gallons of coal ash slurry directly into the Potomac River, a Maryland waterway.

Thank you for taking the initiative to inquire into this important issue and for the opportunity to share Maryland's perspective.